

SHEET 1 OF 1

FORM PTO-1449		DOCKET NUMBER		APPLICATION NUMBER		
INFORMATION DISCLOSURE CITATION IN AN APPLICATION		NPW 307		09/636,814		
		APPLICANTS DAVID J. EDLUND and THOMAS G. HERRON				
		FILING DATE August 10, 2000		GROUP ART UNIT 1764		
U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FIL. DATE IF APPROP.
<i>AK</i>	3,982,910	9/28/1976	Houseman et al.			
<i>I</i>	6,045,772	4/4/2000	Szydlowski et al.			
<i>SM</i>	6,221,117 B1	4/24/2001	Edlund et al.			
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO
OTHER DOCUMENTS						
EXAMINER		DATE CONSIDERED				
<i>Russell</i>		9/30/04				

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FORM PTO-1449

INFORMATION DISCLOSURE
CITATION IN AN APPLICATION

DOCKET NUMBER

NPW 307

APPLICATION NUMBER

09/636,814

APPLICANTS

DAVID J. EDLUND and THOMAS G. HERRON

FILING DATE

August 10, 2000

GROUP ART UNIT

1764



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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FIL. DATE IF APPROP.
<i>FE</i>	6,103,411	08/15/00	Matsubayashi et al.			
	5,985,474	11/16/99	Chen et al.			
	5,897,766	04/27/99	Kawatsu			
	5,677,073	10/14/97	Kawatsu			
	5,616,430	04/01/97	Aoyama			
	5,527,632	06/18/96	Gardner			
	5,399,323	03/21/95	Paisley et al.			
	4,657,828	04/14/87	Tajima			
	4,567,857	02/04/86	Houseman et al.			
	4,003,343	01/18/77	Lee			
<i>FE</i>	3,920,416	11/18/75	Houseman			

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DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO

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EXAMINER

Quia Ridley

DATE CONSIDERED

9/20/04

FORM PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION	DOCKET NUMBER	APPLICATION NUMBER
	NPW 307	
	APPLICANTS DAVID J. EDLUND and THOMAS G. HERRON	
	FILING DATE August 10, 2000	GROUP ART UNIT

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09/636914

08/10/00

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FIL. DATE IF APPROP.
BN	3,350,176	10/31/67	Green et al.			
	3,782,904	1/1/74	Fletcher			
	3,955,941	5/11/76	Houseman et al.			
	4,533,607	8/6/85	Serderquist			
	4,788,004	11/29/88	Pinto et al.			
	4,981,676	1/1/91	Minet et al.			
	5,354,547	10/11/94	Rao et al.			
	5,401,589	3/28/95	Palmer et al.			
	5,658,681	8/19/97	Sato et al.			
DR	5,888,273	3/30/99	Buxbaum			

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	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO	
DR	WO 97/25649 *	7/1997	WIPO			X	

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DR		Amphlett, J. C., et al., "On Board Hydrogen Purification for Steam Reformer/PEM Fuel Cell Vehicle Power Plants," Energy Progress X, Proceedings of the 10 th World Hydrogen Energy Conference, Cocoa Beach, Florida, U.S.A., Vol. 3, pp. 1681-90 (June, 1994). •
DR		Edlund, David J. and William A. Pledger, "The Practical Use of Metal-Membrane Reactors for Industrial Applications," The 1995 Membrane Technology Reviews, pp. 89-97 (November, 1994). •

EXAMINER	<i>Amelia Kelly</i>	DATE CONSIDERED	9/30/04
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U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FIL. DATE IF APPROP.
RM	5,932,181	8/3/99	Kim et al.	1	1	
RM	Re. 35,002	7/25/95	Matsubara et al.	1	1	

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BR		Oertel, Michael, et al., "Steam Reforming of Natural Gas with Integrated Hydrogen Separation for Hydrogen Production," Chemical Engineering Technology, Vol. 10, pp. 248-55 (1987). *
BR		Piwetz et al., "Hydrodesulfurization and Prereforming of Logistic Fuels for Use in Fuel Cell Applications," presented at the 1996 Fuel Cell Seminar held Nov. 17-20, 1996 in Orlando, Florida, pp. 780-783. *
EXAMINER <i>Barbara Kelly</i>		DATE CONSIDERED <i>9/30/04</i>



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U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	RECEIVED DATE FILED
<i>DL</i>	3,094,391 •	6/18/1963	Mader			
	3,144,312 •	8/11/1964	Mertens			
	3,338,681 •	8/29/1967	Kordesch			
	3,450,500 •	6/17/1969	Setzer et al.			
	3,469,944 •	9/30/1969	Bocard et al.			
	3,524,819 •	8/18/1970	Guerrieri			
	3,668,235 •	6/6/1972	Ichikawa et al.			
	3,787,038 •	1/22/1974	Tesner et al.			
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	4,127,393 •	11/28/1978	Timmins et al.			
	4,195,653 •	4/1/1980	Cessou			
	4,238,403 •	12/9/1980	Pinto			
<i>DL</i>	4,302,177 •	11/24/1981	Fankhanel et al.			

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	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO
<i>DL</i>	WO 99/65097	12/1999	WIPO			X

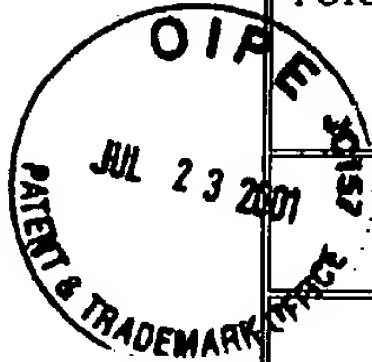
OTHER DOCUMENTS

<i>DL</i>	English abstract of Japanese Patent No. 432150, 1992. •
<i>DL</i>	English abstract of Japanese Patent No. 513230, 1993. •

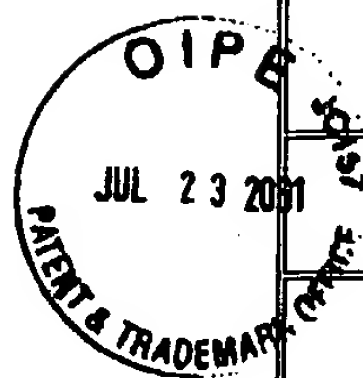
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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	RECEIVED DATE IF APPROVED
<i>BR</i>	4,315,893 •	2/16/1982	McCallister			<i>TC</i> 25 2001
	4,387,434 •	6/7/1983	Moncrief, Jr. et al.			1700
	4,400,182 •	8/23/1983	Davies et al.			
	4,430,304 •	2/7/1984	Spurrier et al.			
	4,466,253 •	8/21/1984	Jaster			
	4,472,176 •	9/18/1984	Rubin			
	4,504,447 •	3/12/1985	Spurrier et al.			
	4,670,359 •	6/2/1987	Beshty et al.			
	4,684,581 •	8/4/1987	Struthers			
	4,713,234 •	12/15/1987	Weirich et al.			
	4,838,897 •	6/13/1989	Amano et al.			
<i>BR</i>	4,849,187 •	7/18/1989	Uozu et al.			
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OTHER DOCUMENTS						
<i>BR</i>		English abstract of Japanese Patent No. 514790, 1993. •				
<i>BR</i>		English abstract of Japanese Patent No. 604070, 1994. •				
EXAMINER			DATE CONSIDERED			
<i>Baudilly</i>			9/30/04			



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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	RECEIVED SUB CLASS FIL. DATE H. & P. NO.	
DR	4,880,040 •	11/14/1989	Pierson et al.		RECEIVED JUL 25 2001 TC 1700	
	5,030,661 •	7/9/1991	Lywood			
	5,229,102 •	7/20/1993	Minet et al.			
	5,326,550 •	7/5/1994	Adris et al.			
	5,382,271 •	1/17/1995	Ng et al.			
	5,417,051 •	5/23/1995	Ankersmit et al.			
	5,458,857 •	10/17/1995	Collins et al.			
	5,637,259 •	6/10/1997	Galuszka et al.			
	5,639,431 •	6/17/1997	Shirasaki et al.			
	5,741,474 •	4/21/1998	Isomura et al.			
	5,741,605 •	4/21/1998	Gillett et al.			
DR	5,858,314 •	1/12/1999	Hsu et al.			
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DR		English abstract of Japanese Patent No. 634540. •				
DR		English abstract of Japanese Patent No. 710910, 1995. •				
EXAMINER			DATE CONSIDERED			
[Signature]			9/30/04			

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AK	5,861,137 .	1/19/1999	Edlund			
	5,897,970 .	4/27/1999	Isomura et al.			
	5,997,594 .	12/7/1999	Edlund et al.			
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	6,042,956 .	3/28/2000	Lenel			
	6,077,620 .	6/20/2000	Pettit			
	6,083,637 .	7/4/2000	Walz et al.			
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FR		English abstract of Japanese Patent No. 828793, 1996. .				
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EXAMINER			DATE CONSIDERED			
Pamela Ridley			9/30/04			




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DOCUMENT NUMBER		DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO	

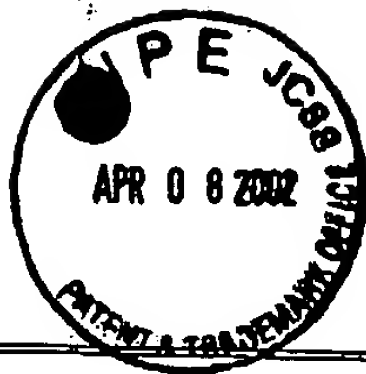
		OTHER DOCUMENTS
		Adris, A. M., et al., "A Fluidized Bed Membrane Reactor for the Steam Reforming of Methane," The Canadian Journal of Chemical Engineering, Vol. 69, pp. 1061-70 (October, 1991).
		Chai, M., et al., "Promotion of Methane Steam Reforming Using Ruthenium-Dispersed Microporous Alumina Membrane Reactor," Chemistry Letters, The Chemical Society of Japan, pp. 41-44 (1993).
		Edlund, Dr. David and William Pledger, "Development of a Compact and Economical Steam Reformer for Fuel-Cell Systems," Fifth Grove Fuel Cell Symposium, Commonwealth Institute, London, U.K., p. 6 (September 22-23, 1997).
		Ledjeff-Hey, K., et al., "Compact Hydrogen Production Systems for Solid Polymer Fuel Cells," Fifth Grove Fuel Cell Symposium, Commonwealth Institute, London, U.K., p. 17 (September 22-25, 1997).

EXAMINER	DATE CONSIDERED
Bruce Ridley	9/30/04



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FORM PTO-1449		DOCKET NUMBER NPW 307		APPLICATION NUMBER 09/636,814			
INFORMATION DISCLOSURE CITATION IN AN APPLICATION		APPLICANTS DAVID J. EDLUND and THOMAS G. HERRON					
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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	RECEIVED FIL. DATE IF APPROP. JUL 25 2001 TC 1700	
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	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO	
OTHER DOCUMENTS							
RR		Menzer, R., et al., "Fuel Processing in Fuel Cell Systems for Mobile Applications - Gasoline as Energy Carrier On-Bord," Fifth Grove Fuel Cell Symposium, Commonwealth Institute, London, U.K., (no page no.), (September 22-25, 1997).					
RR		Minet, R. G., et al., "Experimental Studies of A Ceramic Membrane Reactor for the Steam/Methane Reaction at Moderate Temperatures (400-700°C)," Symposium on Natural Gas Upgrading II Presented before The Division of Petroleum Chemistry, Inc., Meeting of American Chemical Society, San Francisco, California, U.S.A., pp. 245-48 (April, 1992).					
RR		Teagan, W. P., et al., "Cost Reduction of Fuel Cells for Transportation Applications—Fuel Processing Options," Fifth Grove Fuel Cell Symposium, Commonwealth Institute, London, U.K. (September 22-25, 1997).					
EXAMINER		DATE CONSIDERED					
Frank Ridley		9/30/04					



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<i>DL</i>	4,729,931	3/8/1988	Grimble			
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO
OTHER DOCUMENTS						
EXAMINER	<i>David Ridley</i>		DATE CONSIDERED <i>9/30/01</i>			